

PATENT  
1689-0156P

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: LEE, Deog Jae

Appl. No.: NEW Group:

Filed: December 28, 2000 Examiner:

For: ACOUSTIC WAVE SENSOR FOR DETECTING  
CONTACT STATE BETWEEN A VALVE AND A VALVE  
SEAT FOR A VEHICLE

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, DC 20231

December 28, 2000

Sir:

The following preliminary amendments and remarks are respectfully submitted in connection with the above-identified application.

AMENDMENTS

IN THE CLAIMS:

**Please amend the claims as follows:**

**Claim 4:** line 3, change "any one of claims 1,2 and 3" to  
. --claim 1--

**Claim 5:** line 3, change "any one of claims 1 and 3" to  
. --claim 1--

**Please add the following new claims:**

- 7. The acoustic wave sensor for detecting a contact state between a exhaust□intake valve and a valve seat of valve train for a vehicle engine according to claim 2, wherein a speaker is installed at a bending portion of a tubular passage, and said acoustic wave sensing part is installed a site under the contact surface between the valve and the valve seat.
8. The acoustic wave sensor for detecting a contact state between a exhaust□intake valve and a valve seat of valve train for a vehicle engine according to claim 3, wherein a speaker is installed at a bending portion of a tubular passage, and said acoustic wave sensing part is installed a site under the contact surface between the valve and the valve seat.
9. The acoustic wave sensor for detecting a contact state between a exhaust□intake valve and a valve seat of valve train for a vehicle engine according to claim 3, wherein said acoustic wave sensing part comprises a condenser microphone for sensing the acoustic wave.--

REMARKS

The claims have been amended to delete multiple dependents and add new claims 7-9. Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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